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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/705,564 | 11/03/2000 | Rodric C. Fan | M-8813 US | 6675 |

7590 05/07/2004
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| EXAMINER | |
|----------------------|--------------|
| APPIAH, CHARLES NANA | |
| ART UNIT | PAPER NUMBER |
| 2686 | 9 |

DATE MAILED: 05/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/705,564

Applicant(s)

FAN, RODRIC C.

Examiner

Charles Appiah

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-32 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 9, 10, 17, 18 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by **Takao (JP 10-150374)**.

Regarding claims 1, 9, and 17, Takao discloses a radio signal receiving system and method of tuning a mobile radio system (see Drawing 1), comprising: a location unit (GPS receiver 200), a radio receiver (broadcasting receiving set 100), a frequency selection unit coupled to receive GPS derived position information regarding a current location from the location unit (GPS receiver from which existing was carried out and inputted into a vehicle through an input terminal at the received frequency automatic setting section as information whose currency information is the LAT and LONG, see page 1 of DETAILED DESCRIPTION, section 0009), and a set of selection criteria, the frequency selection unit retrieves from a data storage system a selected frequency from the frequencies of broadcast signals that can be received at the current location (input

Art Unit: 2686

of the information on the LAT and LONG searches a database with this received frequency automatic setting section 2 by making information on this LAT and LONG into address, see pages 1-2, section 0009 of DETAILED DESCRIPTION), and a receiving unit coupled to receive the selected frequency from the frequency selection unit and adapted for tuning the radio receiver to receive broadcast signal at the selected frequency (broadcasting frequency of the tuned-in broadcast is set as the broadcast receive section 1, see lines 1-10, page 2 of DETAILED DESCRIPTION).

Regarding claims 2, 10 and 18, Takao further discloses as illustrated in Drawing 2, the selected frequency being the transmission frequency of a frequency modulated (FM) broadcast station (bay-fm), see Fig. 2

Regarding claim 25, Takao further discloses wherein the location information is provided using global positioning system information (see page 1 of MEANS section 0007).

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 3-8, 11-16, 19-22, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takao as applied to claims 1 and 17 above, and further in view of Lee et al. (6,374,177).

Regarding claims 3, 11, 19 and 26, Takao fails to disclose wherein the selected frequency is the transmission frequency of a satellite transmitter and the

Art Unit: 2686

location information is provided using cellular wireless communications system information.

Lee teaches a radio receiving system having the capability of satellite transmissions as well as the transmissions through cellular access network (see col. 10, 49-59).

It would therefore have been obvious to one of ordinary skill in the art to provide for the use of satellite and cellular wireless communication information in the system of Lee in order to provide personalized information services through available communication networks that cover a wide area such as satellite and cellular communications.

Regarding claims 4, 5, 12, 13, 15, 20 and 21, Takao fails to disclose a user interface electrically coupled to receive from the frequency selection unit data arranged as radio content categories, and output a menu of the categories to a listener.

Lee discloses a radio receiving system that includes a user interface electrically coupled to receive from the selection unit data arranged as radio signal content categories, and to output a menu of the categories to a listener which is output on a visual display (see col. 9, line 8 to col. 8, line 19, Figs 4-5).

It would therefore have been obvious to one of ordinary skill in the art to combine the teaching of Lee for outputting content categories with Takao's radio receiving system in order to provide users with multimedia capability through personalized digital information services as taught by Lee.

Art Unit: 2686

Regarding claims 6, 7, 8, 14, 16, 22, 23 and 24 Takao fails to teach a user interface electrically coupled to receive and relay to the selection unit a user command, that can be include menu which audibly output (verbal) by the interface to select a particular content category arrangement in an arrangement of radio signal content categories stored in the frequency selection unit, as well as from downloading via the Internet.

Lee discloses a method for providing navigational services that include the use of verbal (audio) command through audio feedback through speech synthesis to make selections from the available categories as well the provision wireless Internet access to the multimedia device such as selection of content categories via the World-Wide Web (see col. 6, lines 58-65, col. 10, lines 8-39).

It would therefore have been obvious to one of ordinary skill in the art to provide the multimedia capability of Lee to the system of Takao in order to ensure the availability of the advantages of using the Internet to users such as direct streaming audio broadcasts and other Internet content as taught by Lee.

6. Claims 27-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Takao (JP 10-150374)** in view of **Lee et al. (6,728,531)**.

Regarding claim 27, Takao discloses a method of tuning a mobile radio system, comprising the at acts of: at a first time, receiving from a location unit information that identifies a current position of the system (see SOLUTION, of abstract), selecting a first frequency from the tuning data, and tuning a radio receiver to receive radio signals at the first frequency (see SOLUTION, of abstract). Takao further teaches wherein when

Art Unit: 2686

the receiver moves from one broadcast area to another area during driving, a new broadcast frequency is automatically selected based on the new location of the vehicle (see DETAILED DESCRIPTION, "Embodiment of the Invention", pages 1-2), but fails to explicitly teach triggered by the current position at a second time, retrieving from the data storage system tuning data representing frequencies of broadcast signals that can be received at the current position of the second time, automatically selecting a second frequency from the tuning data received when the strength of the radio signal at the first frequency falls below a predetermined value.

In an analogous field of endeavor, Lee teaches a method for remotely configuring a wireless communication device used in an automobile (see abstract). According to Lee, a user need not know the band or frequency of any station to select a broadcast as all types of broadcasts such as AM, FM, TV audio, or digital broadcast can easily be selected by format (i.e., country, classical, news, rock, talk, etc.) and ordered by format, and that when a vehicle travels out of an area such that a currently broadcast program fades out, to automatically tune to another station or recorded broadcast playing the same program or at least the same program type (see col. 6, lines 42-59). Lee suggests that if a playing station experiences a set amount of drift (reading on the strength of the presently tuned frequency falling below a predetermined value), that even will automatically trigger a request from the broadcaster database at the gateway a list of any other receivable stations that are currently broadcasting the same programming as the fading station (see col. 14, lines 46-59), leading to the tuning to

Art Unit: 2686

receive radio signals at a different frequency when a currently tuned frequency's strength falls below a predetermined value.

It would therefore have been obvious to one of ordinary skill in the art to provide the automatic tuning system for selecting a different frequency when the strength of a signal fades of Lee to Takao broadcast receiver for the benefit providing multimedia services to be available to users in different formats with automatic high quality program selection based on location as taught by Lee.

Regarding claim 28, the combination of Takao and Lee further teaches as taught by Lee wherein the tuning data retrieved at the first time and at the second time are in categories of content carried by the radio signals and the frequency is selected based on the content category frequency (see Lee, col. 6, lines 52-59, col. 14, lines 56-59).

Regarding claims 29, Takao further discloses as illustrated in Drawing 2, the selected frequency being the transmission frequency of a frequency modulated (FM) broadcast station (bay-fm), see Fig. 2, and Lee further discloses the tuning data comprises frequency modulated (FM) radio station frequencies (see col. 11, lines 5-19, col. 12, lines 13-22).

Regarding claim 30, the combination of Takao and Lee further discloses as taught by Lee wherein the tuning data comprises frequency modulated (FM) radio station frequencies and satellite transmission frequencies (see col. 10, lines 52-63, col. 11, lines 5-19, col. 12, lines 13-22).

Regarding claim 31, Takao further discloses wherein the location information is provided using GPS information (see page 1 of MEANS section 0007).

Art Unit: 2686

Regarding claim 32, Takao fails to teach wherein the location information is provided using cellular wireless communications system information.

Lee discloses a method for remotely configuring a wireless communication device used in an automobile (see abstract), in which personal data could be transferred using remote wireless devices such as cellular phones or PDAs (see col. 7, lines 38-61, col. 10, lines 53-63).

It would therefore have been obvious to one of ordinary skill in the art to use the cellular access system of Lee in combination with Takao's receiver in order to provide multimedia services and information over cellular networks to users.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. McLellan (CA 2,270,321) discloses a radio receiver with location control programming.

Duckeck et al. (5,303,401) discloses an RDS receiver with automatic region recognition. Keita (JP 11-215017) discloses an information selective device provided in an automobile for selecting geographic region-specific information.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2686

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Appiah whose telephone number is 703 305-4772. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 703 305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2686

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 3, 2004
CA


CHARLES APPIAH
PRIMARY EXAMINER